

II. Remarks

Consideration and allowance of the subject application are respectfully requested.

Claims 1-21 are pending in the application. Claims 1, 13, and 18 are independent. Claims 1-9, 13, 16-18, 20, and 21 have been amended.

In a final Office Action mailed on January 7, 2005, Claims 1-5, 9, 11, and 12 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,519,461 B1 to Andersson, et al. ("Andersson"). Claims 13-15 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,434,130 B1 to Soininen, et al. ("Soininen"). Claims 6 and 10 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Andersson. Claims 7 and 8 were rejected as allegedly being unpatentable over Andersson in view of U.S. Patent No. 6,347,091 B1 to Wallentin, et al. ("Wallentin"). Claim 16 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Soininen in view of Andersson. Claim 17 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Soininen in view of U.S. Patent No. 5,878,277 to Ohta ("Ohta"). Claims 18-21 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,790,534 to Kokko, et al. ("Kokko") in view of Wallentin. These rejections are traversed.

As amended herein, independent Claim 1 recites a communications structure for communicating between a network node and at least two subscriber stations through a multiplexed link. The structure comprises a plurality of dedicated channels, each dedicated channel having allocated to it a portion of

the transmission capacity of said link to provide communication between said network node and one of said at least two subscriber stations; and a shared downlink channel having allocated to it a portion of the transmission capacity of said link. The shared downlink channel is operable to transmit frames of packets from said network node to said at least two subscriber stations, at least some such frames including packets of data addressed to different ones of the at least two subscriber stations.

As amended herein, independent Claim 13 recites a method of transmitting data from a network node to a plurality of subscriber stations over a multiplexed link. The method comprises the steps of: (i) determining the requirements for a first data transmission intended for a subscriber station; (ii) selecting the use of a dedicated channel or a shared downlink channel to effect said first data transmission in accordance with said determined requirements; and (iii) if a dedicated channel is selected, obtaining a dedicated channel when available and transmitting said first data transmission thereon and if a shared downlink channel is selected, transmitting said first data transmission on said shared downlink channel in the form of data packets addressed to said subscriber station, said data packets assembled into frames, at least some such frames including packets of data addressed to different ones of said subscriber stations.

As amended, independent Claim 18 recites a method of managing a transmission structure for transmitting data from a network node to a plurality of subscriber stations over a multiplexed link. The method comprises the steps of:

(i) allocating a portion of the bandwidth of said multiplexed link to create a number of dedicated channels, each of which can be assigned to a different one of said subscriber stations; (ii) allocating a portion of the remaining bandwidth of said multiplexed link to a shared downlink channel which can communicate with a plurality of said subscriber stations, data transmission on said shared downlink channel in the form of data packets assembled into frames, at least some such frames including packets of data addressed to different ones of said subscriber stations; and (iii) monitoring the requirements for dedicated channels in said structure and reallocating bandwidth of said multiplexed link between said shared downlink channel and said dedicated channels to create or remove dedicated channels as required.

Accordingly, each of independent Claims 1, 13, and 18 has been amended to recite that the shared channel is a shared downlink channel. In addition, each of dependent Claims 2-9, 16, 17, 20, and 21 has been amended to recite that the shared channel is a shared downlink channel. Support for these amendments may be found at page 6, line 18 through page 7, line 9 of the originally-filed specification. Therefore, no new matter has been added.

As recited in each of independent Claims 1, 13, and 18, the shared downlink channel is operable to transmit frames from a network node to a plurality of subscriber stations over a multiplexed link. For that reason, there is no competition for its use. By contrast, the cited prior art seems to be disclosing bidirectional "common channels", in which collisions can occur. See, for example, column 3, lines 26-32 of Andersson in which "users are trying to

transmit on a common channel” and “congestion on the common channel” results.

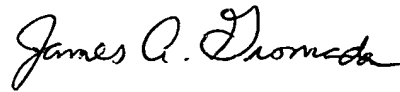
Furthermore, Applicants note that at page 14 of the January 7, 2005 Office Action, it is stated that “[t]he Examiner notes that further clarification that distinguishes the Applicant’s *shared channel* from a ‘common channel’ may result in overcoming the prior art.” [Emphasis in original.] By amending each of independent Claims 1, 13, and 18 to recite that the shared channel is a shared downlink channel, Applicants have accepted this suggestion by the Examiner.

Therefore, because each of the independent claims recites a “shared downlink channel”, Applicants submit that each of independent Claims 1, 13, and 18 is patentably distinct from the cited references, for the reasons discussed above. In addition, each of Claims 2-12, 14-17, and 19-21 depends from one of independent Claims 1, 13, and 18, and is therefore allowable over the cited references for the same reasons.

In view of the above remarks, it is believed that this application is now in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our
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Respectfully submitted,



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